WHAT IS CLAIMED IS:

1. A method for controlling a magnetic tape unit in response to a command from a command issuing apparatus comprising the steps of:

in an open process for a file recorded on a magnetic tape, fixing a position of a head (hereinafter referred to as a real head position) relative to said magnetic tape at a predetermined position in said magnetic tape unit; and

when receiving a command from said command issuing apparatus, executing emulation in which a tape operation according to said command is virtually carried out in said magnetic tape unit without making said magnetic tape unit carry out a real tape operation.

2. The method for controlling a magnetic tape unit according to claim 1, wherein in a close process for said file, an end-of-file label read by said magnetic tape unit in response to a command from said command issuing apparatus is saved in a save area, and;

in an open process for said file, said end-of-file label is transferred to said command issuing apparatus from said save area in response to a command directing to read said end-of-file label without making said magnetic tape unit carry out a real

read operation.

3. The method for controlling a magnetic tape unit according to claim 1, wherein in a close process for said file, an end-of-file label written by said magnetic tape unit in response to a command from said command issuing apparatus is saved in a save area; and

in an open process for said file, said end-of-file label is transferred to said command issuing apparatus from said save area in response to a command directing to read said end-of-file label without making said magnetic tape unit carry out a real read operation.

4. The method for controlling a magnetic tape unit according to claim 1, wherein in a close process for said file, said magnetic tape unit is made to carry out a real read operation to really read an end-of-file label, which is skipped in said magnetic tape unit in response to a command from said command issuing apparatus, said read end-of-file label is saved in a save area; and

in an open process for said file, said end-of-file label is transferred to said command issuing apparatus from said save area in response to a command directing to read said end-of-file label without making said magnetic tape unit carry out a real

read operation.

5. The method for controlling a magnetic tape unit according to claim 2, wherein when, in an open process for said file, a command directing to read said end-of-file label is received in a state in which said end-of-file label is not saved in said save area, said magnetic tape unit is made to carry out a real read operation to really read said end-of-file label, and said read end-of-file label is transferred to said command issuing apparatus.

6. The method for controlling a magnetic tape unit according to claim 1, wherein a data buffer for temporarily storing write data to said magnetic tape and read data from said magnetic tape therein is interposed between said command issuing apparatus and said magnetic tape unit to asynchronously carry out a read/write process between said command issuing apparatus and said data buffer and a read/write process between said data buffer and said magnetic tape unit.

7. The method for controlling a magnetic tape unit according to claim 1, wherein a tape operation of said magnetic tape unit is such controlled that, on said magnetic tape, the first tape mark is written after

the last data block of said file, the first end-of-file label and the second end-of-file label are written after said first tape mark, the second tape mark is written after said second end-of-file label, and the third tape mark is further written after said second tape mark when said file is the last on said magnetic tape, whereas the next file is written over said third tape mark to be written when the next file is additionally written after said file; and

said emulation is executed between immediately before said first tape mark and immediately after said third tape mark while fixing said head at said predetermined position which is immediately after said second tape mark.

8. The method for controlling a magnetic tape unit according to claim 7, wherein while said emulation is executed, a virtual position of said head (hereinafter referred to as a virtual head position) relative to said magnetic tape in said magnetic tape unit is managed as a relative position of said head relative to said predetermined position.

9. The method for controlling a magnetic tape unit according to claim 8, wherein when a command requiring the real head position in said magnetic tape unit is received while said emulation is executed, a sum of

said predetermined position and said relative position is generated, and said sum is reported as the real head position to said command issuing apparatus.

10. The method for controlling a magnetic tape unit according to claim 8, wherein when said magnetic tape unit is shifted to a real operation while said emulation is executed, the real head position in said magnetic tape unit is generated as a sum of said predetermined position and said relative position, and said head in said magnetic tape unit is re-positioned at said real head position.

11. The method for controlling the magnetic tape unit according to claim 7, wherein in a state in which both of said first end-of-file label and said second end-of-file label are saved in said save areas, and in a state in which reading/writing up to said second tape mark is completed and the real head position is said predetermined position in said magnetic tape unit;

when any one of a read backward command, a back space block command and a back space file command is received, with said virtual head position being immediately after said second tape mark;

when any one of a read command, a read backward command, a back space block command, a back space file

command, a forward space block command, a forward space file command, and a write tape mark command is received, with said virtual head position being immediately after said second end-of-file label;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said first end-of-file label;

when any one of a read command, a read back command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said first tape mark; or

when any one of a read command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said last data block, said emulation is executed.

12. The method for controlling a magnetic tape unit according to claim 7, wherein in a state in which both of said first end-of-file label and said second end-of-file label are saved in said save areas, and in a state in which reading/writing up to said third

tape mark is completed and the real head position is said predetermined position in said magnetic tape unit;

when any one of a read backward command, a back space block command and a back space file command is received, with said virtual head position being immediately after said third tape mark;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command, a forward space file command and a write tape mark command is received, with said virtual head position being immediately after said second tape mark;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said second end-of-file label;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said first end-of-file label;

when any one of a read command, a read backward command, a back space block command, a back space file

command, a forward space block command and a forward space file command is received, with said virtual head position is immediately after said first tape mark; or

when any one of a read command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said last data block, said emulation is executed.

13. The method for controlling a magnetic tape unit according to claim 7, wherein in a state in which only said first end-of-file label is saved in said save area, and in a state in which reading/writing up to said second tape mark is completed and the real head position is said predetermined position in said magnetic tape unit;

when any one of a read backward command, a back space block command and a back space file command is received, with said virtual head position being immediately after said second tape mark;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command, a forward space file command and a write tape mark command is received, with said virtual head position being immediately after said second end-of-file label;

when any one of a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said first end-of-file label;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said first tape mark; or

when any one of a read command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said last data block, said emulation is executed.

14. The method for controlling a magnetic tape unit according to claim 7, wherein in a state in which only said first end-of-file label is saved in said save area, and in a state in which reading/writing up to said third tape mark is completed and the real head position is said predetermined position in said magnetic tape unit;

when any one of a read backward command, a back space block command and a back space file command is received, with said virtual head position being

immediately after said third tape mark;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command, a forward space file command and a write tape mark command is received, with said virtual head position being immediately after said second tape mark;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said second end-of-file label;

when any one of a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said first end-of-file label;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said first tape mark; or

when any one of a read command, a forward space block command and a forward space file command is received, with said virtual head position being

immediately after said last data block, said emulation is executed.

15. The method for controlling a magnetic tape unit according to claim 7, wherein in a state in which only said second end-of-file label is saved in said save area, and in a state in which reading/writing up to said second tape mark is completed and the real head position is said predetermined position in said magnetic tape unit;

when any one of a read backward command, a back space block command and a back space file command is received, with said virtual head position being immediately after said second tape mark;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command, a forward space file command and a write tape mark command is received, with said virtual head position being immediately after said second end-of-file label;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said first end-of-file label;

when any one of a read backward command, a back

space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said first tape mark; or

when any one of a read command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said last data block, said emulation is executed.

16. The method for controlling a magnetic tape unit according to claim 7, wherein in a state in which only said second end-of-file label is saved in said save area, and in a state in which reading/writing up to said third tape mark is completed and the real head position is said predetermined position in said magnetic tape unit;

when any one of a read backward command, a back space block command and a back space file command is received, with said virtual head position being immediately after said third tape mark;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command, a forward space file command and a write tape mark command is received, with said virtual head position being immediately after said second tape mark;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said second end-of-file label;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said first end-of-file label;

when any one of a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said first tape mark; or

when any one of a read command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said last data block, said emulation is executed.

17. The method for controlling a magnetic tape unit according to claim 7, wherein in a state in which neither said first end-of-file label nor said second end-of-file label is saved in said save area, and in

a state in which reading/writing up to said second tape mark is completed and the real head position is said predetermined position in said magnetic tape unit;

when any one of a read backward command, a back space block command and a back space file command is received, with said virtual head position being immediately after said second tape mark;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command, a forward space file command and a write tape mark command is received, with said virtual head position being immediately after said second end-of-file label;

when any one of a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said first end-of-file label;

when any one of a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said first tape mark; or

when any one of a read command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said last data block, said emulation

is executed.

18. The method for controlling a magnetic tape unit according to claim 7, wherein in a state in which neither said first end-of-file label nor said second end-of-file label is saved in said save area, and in a state in which reading/writing up to said third tape mark is completed and the real head position is said predetermined position in said magnetic tape unit;

when any one of a read backward command, a back space block command and a back space file command is received, with said virtual head position being immediately after said third tape mark;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command, a forward space file command and a write tape mark command is received, with said virtual head position being immediately after said second tape mark;

when any one of a read command, a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said second end-of-file label;

when any one of a read backward command, a back space block command, a back space file command, a

forward space block command and a forward space file command is received, with said virtual head position being immediately after said first end-of-file label;

when one of a read backward command, a back space block command, a back space file command, a forward space block command and a forward space file command is received, with said virtual head position being immediately after said first tape mark; or

when one of a read command, forward space block command and a forward space file command is received, with said virtual head position being immediately after said last data block, said emulation is executed.

19. The method for controlling a magnetic tape unit according to claim 7, wherein when, in a close process for said file, a command requiring to write said third tape mark is received after said second tape mark is written on said magnetic tape, completion of a writing of said third tape mark is reported to said command issuing apparatus without writing said third tape mark.

20. The method for controlling a magnetic tape unit according to claim 19, wherein when a command directing to position said head outside a region from immediately before said first tape mark to immediately

after said third tape mark is received, said third tape mark is written, and said magnetic tape unit is then made to carry out a tape operation according to said command.

21. The method for controlling a magnetic tape unit according to claim 19, wherein when EOD (End Of Data) is detected after said second tape mark in said magnetic tape unit during a tape operation in response to a command from said command issuing apparatus, detection of said third tape mark is reported in lieu of detection of said EOD to said command issuing apparatus.

22. A method for controlling a magnetic tape unit in response to a command from a command issuing apparatus comprising the steps of:

in a close process for a file recorded on a magnetic tape, controlling a tape operation of said magnetic tape unit such that, on said magnetic tape, the first tape mark is written after the last data block of said file, at least one end-of-file label is written after said first tape mark, and the second tape mark is written after said end-of-file label, and reporting completion of a writing of said third tape mark to said command issuing apparatus without writing said third tape mark even if a command requiring to

write said third tape mark is received.

23. The method for controlling a magnetic tape unit according to claim 22, wherein when a command in a motion system involving unloading and rewinding is received, said third tape mark is written, and said magnetic tape unit is then made to carry out a tape operation according to said command in the motion system.

24. The method for controlling a magnetic tape unit according to claim 22, wherein when EOD (End Of Data) is detected after said second tape mark in said magnetic tape unit during a tape operation in response to a command from said command issuing apparatus, detection of said third tape mark is reported in lieu of detection of said EOD to said command issuing apparatus.

25. The method for controlling a magnetic tape unit according to claim 6, wherein a plurality of end-of-file labels are recorded as one physical block on said magnetic tape by a packeting function;

when a command directing to read one of said plurality of end-of-file labels is received in a close process for said file, said one physical block including the end-of-file label to be read is read out

from said magnetic tape and stored in said data buffer; and

in an open process for said file, an end-of-file label corresponding to a command directing to read the one of said plurality of end-of-file labels is read out from said data buffer in response to said command and transferred to said command issuing apparatus.